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Substitute for form

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known					
Application Number	10/676,652				
Filing Date	10/01/2003				
First Named Inventor	Chang				
Art Unit	2186				
Examiner Name	Peers				
Attorney Docket Number	SANDPO35				

			U. S. PATEN	DOCUMENTS	
Examiner Initials*	Cite No.1	Document Number Number-Kind Code ² (# known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Unes, Where Relevant Passages or Relevant Figures Appear
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		FORE	IGN PATENT DOCU	MENTS		
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Examiner Signature /Hetul Patel/ Date Considered 12/21/2006

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Substitute	e for form 1449/PTO				Complete if Known		
				Application Number	10/676,652		
INFO	INFORMATION DISCLOSURE			'Filing Date	10/01/2003		
STA	STATEMENT BY APPLICANT		First Named Inventor	Chang			
	(Use as many sheets as necessary)		Art Unit	2186			
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Sheet	2	of	2	Attorney Docket Number	SANDP035		

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
НВР		CHIANG et al., "Managing Flash Memory in Personal Communication Devices", Proc. Int'l Symp. Consumer Elec. (IEEE, 1997), pp. 177-82.	
НВР		KAWAGUCHI et al., "Flash-Memory Based File System", Proc. USENIX Tech. Conf (1995), pp. 155-64.	
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^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

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	Substitute for form 1449/PTO	Complete if Known		
		Application Number	10/676,652	
	INFORMATION DISCLOSURE	Filing Date	10/01/2003	
		First Named Inventor	Chang	
	STATEMENT BY APPLICANT	Art Unit	2188	
	(Use as many sheets as necessary)	Examiner Name	Padmanabhan	
<u></u>	Sheet 1 of 1	Attorney Docket Number	SANDP035	

Examiner Cite No.	Cite	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where
	Number-Kind Code ^{3 (Fileowe)}	MM-DD-YYYY	Applicant of Cited Document	Relevant Pessages or Relevant Figures Appear	
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	the Paperwork Reduction Act of 1895, no persons are required to stitute for form 1449/PTO		mplete if Known	
-		Application Number	10/676,652	
-	CODMATION DISCLOSURE	Filing Date	10/01/2003	
	FORMATION DISCLOSURE	First Named Inventor	Chang et al.	
S	TATEMENT BY APPLICANT	Art Unit	2188	
	(Use as many sheets as necessary)	Examiner Name	Padmanabhan	
Shoot	1 of 1	Attorney Docket Number	SANDP035	

Examiner Initials*	No.1	Document Number Number-Kind Code ^{2 (F learne)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
HBP			Achiwa et al.		
		US- 5987573	11-1999	Hiraka, Seiji	
		US- 6684289	01-2004	Gonzalaz et al.	
		US- 5734816	03-1998	Niijima et al.	
		^{US-} 6807095	10-2004	Chen et al.	
7		US- 6823528	11-2004	Howard et al.	
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INFORMATION DISCLOSURE

Mute for form 1449A/PTO

STATEMENT BY APPLICANT

Complete if Known Application Number 10/676,652 Filing Date October 1, 2003 First Named Inventor Robert C. Chang Art Unit 2188 **Examiner Name** Unassigned

(Use as many sheets as necessary) Sheet of

Attorney Docket Number SANDP035 U.S. PATENT DOCUMENTS Pages, Columns, Lines, Where Relevant Passages or Relevant Publication Date MM-DD-YYYY Name of Patentee or Applicant of Cited Document Document Number Cite No. Figures Appear Examine Number Kind Code² (Finoun) HBP AA US-2001/001065 07-26-2001 Chiba AB US-6,405,295 HBP 06-11-2002 Bando AC US-AD US-ΑE US-AF US-AG US-AH US-ΑI US-AJ US-ΑK US-ΑI US-AM US-AN US-

				FOREIGN PA	TENT DOCUM	ENTS		
Examiner City No.		Foreign Patent Document				Name of Patentee or	Pages, Columns, Lines, Where Relevant	
	No.1	Country Code ³	Number ⁴	Publication Date MM-DD-YYYY		Applicant of Cited Document	Passages or Relevant Figures Appear	T⁰
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Examiner Signature /Hetul Patel/	Date Considered 12/21/2006	
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Substitute for form 1449A/PTO				Complete if Known
			Application Number	10/676,652
		DISCLOSURE	Filing Date	October 1, 2003
STATI	EMENT BY	' APPLICANT	First Named Inventor	Robert C. Chang
			Art Unit	2188
(Use as many sheets as necessary)			Examiner Name	Unassigned .
Sheet	1	of	Attorney Docket Number	SANDP035

	U.S. PATENT DOCUMENTS								
		Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant				
Examiner Cite		Number Kind Code ² (Fknown)			Figures Appear				
HBP	AA	US-5,930,193	07-27-1999	Achiwa et al.					
HBP	AB	US-6,381,176	04-30-2002	Kim et al.					
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Examiner Initials*	Cite No. ¹	Country Code ³	MM-DD-YYYY		Publication Date MM-DD-YYYY	Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear	T ⁶
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Examiner Signature	/Hetul Patel/	Date Considered	12/21/2006

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Form 1449 (Modified)

Information Disclosure Statement By Applicant

(Use Several Sheets if Necessary)

Atty Docket No.

SANDP035

Application No.: Inventor

10/676,652

Group

Robert C. Chang et al. Unassigned

Filing Date

October 1, 2003

Mailing Date

October 22, 2003

U.S. Patent or Published Documents

Examiner						Sub-	Filing
Initial	No.	Patent No.	Date	Patentee	Class	Class	Date
HBP	A	5,222,109	6/22/93	Pricer	377	24.1	12/28/90
	В	5,297,148	3/22/94	Harari et al.	371	10.2	10/20/92
	C	5,388,083	2/7/95	Assar et al.	365	218	3/26/93
	D	5,438,573	8/1/95	Mangan et al.	371	10.3	6/1/94
	E	5,568,439	10/22/96	Harari	365	218	6/6/95
	F	5,598,370	1/28/97	Niijima et al.	365	185.33	4/26/95
	G	5,835,935	11/10/98	Estakhri et al.	711	103	9/13/95
	H	5,845,313	12/1/98	Estakhri et al.	711	103	7/31/95
	I	5,860,082	1/12/99	Smith et al.	711	103	3/28/96
	J	5,907,856	5/25/99	Estakhri et al.	711	103	3/31/97
	K	5,924,113	7/13/99	Estakhri et al.	711	103	5/29/98
	L	6,016,275	1/18/00	Han	365	185.29	11/4/98
	M	6,081,447	6/27/00	Lofgren, et al.	365	185.02	3/5/99
	N	6,115,785	9/5/00	Estakhri et al.	711	103	5/13/99
	О	6,125,435	9/26/00	Estakhri et al.	711	201	11/24/97
	P	6,230,233	5/8/01	Lofgren, et al.	711	103	9/13/91
\/	Q	6,260,156	7/10/01	Garvin et al.	714	8	12/4/98
V	R	6,426,893	7/30/02	Conley et al.	365	185.11	2/17/00

Foreign Patent or Published Foreign Patent Application

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Initial	No.	No.	Date	Patent Office	Class	class	Yes	No
HBP	S	62-283496	12/9/87	JР			X	
HBP	T	62-283497	12/9/87	JP			X	

Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication				
НВР	U	Kim, Jesung et al., "A Space-Efficient Flash Translation Layer for Compactflash Systems", IEEE Transactions on Consumer Electronics, Vol. 48, No. 2, May 2002				
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